

## REMARKS

### STATUS OF CLAIMS

Claims 1-30 are pending. Claims 1-4, 7, 11, 14, and 20 stand rejected under 35 U.S.C. § 102(b). *See Examiner's Office Action* p. 2 (28 December 2005). Claims 24-30 stand rejected under 35 U.S.C. § 102(e). *See Examiner's Office Action* p. 3 (28 December 2005). Claims 5, 6, 8-10, 12, 13, 15-19, and 21-23 stand rejected under 35 U.S.C. § 103(a). *Id.* pp. 4-8 (28 December 2005).

### PRESENTED CLAIMS ALLOWABLE IN VIEW OF THE MPEP STANDARDS AND THE ART OF RECORD

Following, Applicant first sets forth the MPEP standards and/or law for determining anticipation and obviousness. Thereafter, Applicant shows that, under the MPEP standards, the presented claims are patentable over the art of record.

#### **I. MPEP Standards for Determining Anticipation and Obviousness<sup>1</sup>**

Described following are the MPEP standards for determining anticipation and obviousness. In some rare instances, Applicant has supplemented the MPEP standards by citing Federal Circuit case law. Should Examiner feel that Applicant has in any way mischaracterized the MPEP or the cited law, Applicant requests a courtesy call at the telephone number set forth below.

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<sup>1</sup> Applicant is aware that Examiner is familiar with the MPEP standards. Applicant is merely setting forth the MPEP standards to serve as a framework for Applicant's arguments following. Should Examiner disagree with Applicant's characterization of the MPEP standards, applicant respectfully requests correction.

## **A. MPEP Standards for Determining Anticipation**

An examiner bears the initial burden of factually supporting any prima facie conclusion of anticipation. *In Re Skinner*, 2 USPQ 2d 1788, 1788-89 (B.P.A.I. 1986); *MPEP* § 2107 (citing *In re Oetiker*, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992) (“The examiner bears the initial burden, on review of the prior art or on any other ground, of presenting a prima facie case of unpatentability. . .”). Failure of an examiner to meet this burden entitles an applicant to a patent. *Id.* (“[i]f examination at the initial stage does not produce a prima facie case of unpatentability, then without more the applicant is entitled to grant of the patent”).

The MPEP indicates that in order for an examiner to establish a prima facie case of anticipation of an applicant’s claim, the examiner must first interpret the claim<sup>2</sup>, and thereafter show that the cited prior art discloses the same elements, in the same arrangement, as the elements of the claim which the examiner asserts is anticipated. More specifically, the MPEP states that “[a] claim is anticipated *only if each and every element as set forth in the claim is found*, either expressly or inherently described, in a single prior art reference. . . . The identical invention must be shown in as complete detail as is contained in the . . . claim. . . . The elements must be arranged as required by the claim . . .”). *MPEP* § 2131. Consequently, under the guidelines of the MPEP set forth above, if there is *any* substantial difference between the prior art cited by an examiner and an applicant’s claim which the examiner asserts is rendered obvious by the prior art, the prior art does NOT establish a prima facie case of anticipation and, barring other rejections, the applicant is entitled to a patent on such claim.

## **B. MPEP Standards for Determining Obviousness**

As a preliminary matter, with respect to patentability in general, the MPEP states as follows: “the examiner bears the initial burden, on review of the prior art or on any other ground, of presenting a prima facie case of unpatentability. If that burden is met, the burden of

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<sup>2</sup> With respect to interpreting a claim at issue, the *MPEP* directs that, during examination -- as opposed to subsequent to issue - such claim be interpreted as broadly as the claim terms would reasonably allow, in light of the specification, when read by one skilled in the art with which the claimed invention is most closely connected. *MPEP* § 2111.

coming forward with evidence or argument shifts to the applicant. . . . If examination at the initial stage does not produce a prima facie case of unpatentability, then without more the applicant is entitled to grant of the patent.” *MPEP* § 2107 (citing *In re Oetiker*, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992)); *In Re Glaug* \*5 (Fed. Cir., 15 March 2002) (Fed. Cir. BBS) (“During patent examination the PTO bears the initial burden of presenting a prima facie case of unpatentability. *In re Oetiker*, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992); *In re Piasecki*, 745 F.2d 1468, 1472, 223 USPQ 785, 788 (Fed. Cir. 1984). If the PTO fails to meet this burden, then the applicant is entitled to the patent.”) . Accordingly, unless and until an examiner presents evidence establishing prima facie unpatentability, an applicant is entitled to a patent on all claims presented for examination.

More specifically, with respect to obviousness as a particular type of unpatentability, the MPEP states that “[t]he examiner bears the initial burden of factually supporting any prima facie conclusion of obviousness<sup>3</sup>.” *MPEP* § 2142. The MPEP indicates that in order for an examiner to establish a prima facie case that an invention, as defined by a claim at issue, is obvious the examiner must (1) interpret the claim at issue; (2) define one or more prior art reference components relevant to the claim at issue; (3) ascertain the differences between the one or more prior art reference components and the elements of the claim at issue; and (4) adduce objective evidence which establishes, under a preponderance of the evidence standard, a teaching to modify the teachings of the prior art reference components such that the prior art reference components can be used to construct a device that meets the recitations of the claim at issue. This last step generally encompasses two sub-steps: (1) adducement of objective evidence teaching how to modify the prior art components to achieve the individual recitations of the claim at issue; and (2) adducement of objective evidence teaching how to combine the modified individual components such that the claim at issue, as a whole, is achieved. *MPEP* § 2141; *MPEP* § 2143. Each of these forgoing is further defined within the MPEP. *Id.*

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<sup>3</sup> An invention, as embodied in the claims, is rendered obvious if an examiner concludes that although the claimed invention is not identically disclosed or described in a reference, the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. *MPEP* § 2141 (citing 35 U.S.C. § 103).

## **1. Interpreting a Claim at Issue**

With respect to interpreting a claim at issue, the *MPEP* directs that, during examination -- as opposed to subsequent to issue -- such claim be interpreted as broadly as the claim terms would reasonably allow when read by one skilled in the art with which the claimed invention is most closely connected. In practice, this is achieved by giving each of the terms in the claim the “plain meaning” of the terms as such would be understood by those having ordinary skill in the art, and if portions of the claim have no “plain meaning” within the art, or are ambiguous as used in a claim, then the examiner is to consult the specification for clarification. *MPEP* § 2111.

## **2. Definition of One or More Prior Art Reference Components Relevant To the Claim at Issue**

Once the claim at issue has been properly interpreted, the next step is the definition of one or more prior art reference components (e.g., electrical, mechanical, or other components set forth in a prior art reference) relevant to the properly interpreted claim at issue. With respect to the definition of one or more prior art reference components relevant to the claim at issue, the *MPEP* defines three proper sources of such prior art reference components, with the further requirement that each such source must have been extant at the time of invention to be considered relevant. These three sources are as follows: patents as defined by 35 U.S.C. § 102, printed publications as defined by 35 U.S.C. § 102, and information (e.g., scientific principles) deemed to be “well known in the art”<sup>4</sup> as defined under 35 U.S.C. § 102. *MPEP* § 2141.

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<sup>4</sup> The fact that information deemed to be “well known in the art” can serve as a proper source of prior art reference components seems to open the door to subjectivity, but such is not the case. As a remedy to this potential problem, *MPEP* § 2133.03 states that if an examiner asserts that his position is derived from and/or is supported by a teaching or suggestion that is alleged to have been “well known in the art,” and that if an applicant traverses such an assertion (that something was “well known within the art”), the examiner must cite a reference in support of his or her position. The same *MPEP* section also states that when a rejection is based on facts within the personal knowledge of an examiner, the data should be stated as specifically as possible, and the facts must be supported, when called for by the applicant, by an affidavit from the examiner. Such an affidavit is subject to contradiction or explanation by the affidavits of the applicant and other persons. *Id.* Thus, all sources of prior art reference components must be objectively verifiable.

### **3. Ascertainment of Differences between Prior Art Reference Components and Claim at Issue; Teaching to Modify and/Or Combine Prior Art Reference Components to Remedy Those Differences In Order To Achieve Recitations of Claim at Issue**

With one or more prior art components so defined and drawn from the proper prior art sources, the differences between the one or more prior art reference components and the elements of the claim at issue are to be ascertained. Thereafter, in order to establish a case of prima facie obviousness, an examiner must set forth a rationale, supported by objective evidence<sup>5</sup> sufficient to demonstrate under a preponderance of the evidence standard, that in the prior art extant at the time of invention there was a teaching to modify and/or combine the one or more prior art reference components to construct a device that meets the recitations of the claim at issue.

The preferable evidence relied upon is an express teaching to modify/combine within the properly defined objectively verifiable sources of prior art. In the absence of such express teaching, an examiner may attempt to establish a rationale to support a finding of such teaching reasoned from, or based upon, express teachings taken from the defined proper sources of such evidence (i.e., properly defined objectively verifiable sources of prior art). *MPEP* § 2144; *In re Dembiczak*, 50 USPQ2d 1614 (Fed. Cir. 1998).

The MPEP recognizes the pitfalls associated with the tendency to subconsciously use impermissible “hindsight” when an examiner attempts to establish such a rationale. The MPEP has set forth at least two rules to ensure against the likelihood of such impermissible use of hindsight. The first rule is that “under 35 U.S.C. 103, the examiner must step backward in time and into the shoes worn by the hypothetical ‘person of ordinary skill in the art’ when the invention was unknown and just before it was made. In view of all factual information<sup>6</sup>, the examiner must then make a determination whether the claimed invention ‘as a whole’ would have been obvious at that time to that person. Knowledge of an Applicant’s disclosure must be put aside in reaching this determination, yet kept in mind in order to determine the ‘differences,’

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<sup>5</sup> The proper sources of the objective evidence supporting the rationale are the defined proper sources of prior art reference components, discussed above, with the addition of factually similar legal precedent. *MPEP* § 2144.

<sup>6</sup> “Factual information” is information actually existing or occurring, as distinguished from mere supposition or opinion. *Black’s Law Dictionary* 532 (5th ed. 1979).

conduct the search, and evaluate the ‘subject matter as a whole’ of the invention. The tendency to resort to ‘hindsight’ based upon an Applicant’s disclosure is often difficult to avoid due to the very nature of the examination process. However, impermissible hindsight must be avoided and the legal conclusion must be reached on the basis of the facts gleaned from the prior art.”

*MPEP* § 2142 (emphasis added). Thus, if the only objective evidence of such teaching to modify and/or combine prior art reference components is an applicant’s disclosure, no evidence of such teaching exists<sup>7</sup>.

The second rule is that if an examiner attempts to rely on some advantage or expected beneficial result that would have been produced by a modification and/or combination of the prior art reference components as evidence to support a rationale to establish such teachings to modify and/or combine prior art reference components, the *MPEP* requires that such advantage or expected beneficial result be objectively verifiable teachings present in the acceptable sources of prior art (or drawn from a convincing line of reasoning based on objectively verifiable established scientific principles or teachings). *MPEP* § 2144. Thus, as a guide to avoid the use of impermissible hindsight, these rules from the *MPEP* make clear that absent some objective evidence, sufficient to persuade under a preponderance of the evidence standard, no teaching of such modification and/or combination exists.<sup>8</sup>

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<sup>7</sup> An applicant may argue that an examiner’s conclusion of obviousness is based on improper hindsight reasoning. However, “[a]ny judgment on obviousness is in a sense necessarily a reconstruction based on hindsight reasoning, but so long as it takes into account only knowledge which was within the level of ordinary skill in the art at the time the claimed invention was made and does not include knowledge gleaned only from applicant’s disclosure, such a reconstruction is proper.” *MPEP* § 2145(X)(A) (emphasis added).

<sup>8</sup> *In Re Sang Su Lee* \*7-8 (Fed.Cir. 18 January 2002) (Fed.Cir. BBS) (“When patentability turns on the question of obviousness, the search for and analysis of the prior art includes evidence relevant to the finding of whether there is a teaching, motivation, or suggestion to select and combine the references relied on as evidence of obviousness. See, e.g., *McGinley v. Franklin Sports, Inc.*, 262 F.3d 1339, 1351-52, 60 USPQ2d 1001, 1008 (Fed. Cir. 2001) (“the central question is whether there is reason to combine [the] references,” a question of fact drawing on the Graham factors). “*The factual inquiry whether to combine references must be thorough and searching.*” *Id.* It must be based on objective evidence of record. This precedent has been reinforced in myriad decisions, and cannot be dispensed with. See, e.g., *Brown & Williamson Tobacco Corp. v. Philip Morris Inc.*, 229 F.3d 1120, 1124-25, 56 USPQ2d 1456, 1459 (Fed. Cir. 2000) (“a showing of a suggestion, teaching, or motivation to combine the prior art references is an ‘essential component of an obviousness holding’”) (quoting *C.R. Bard, Inc., v. M3 Systems, Inc.*, 157 F.3d 1340, 1352, 48 USPQ2d 1225, 1232 (Fed. Cir. 1998)); *In re Dembiczak*, 175 F.3d 994, 999, 50 USPQ2d 1614, 1617 (Fed. Cir. 1999) (“Our case law makes clear that the best defense against the subtle but powerful attraction of a hindsight-based obviousness analysis is rigorous application of the requirement for a showing of the teaching or motivation to combine prior art references.”); *In re Dance*, 160 F.3d 1339, 1343, 48 USPQ2d 1635, 1637 (Fed. Cir. 1998) (there must be some motivation, suggestion, or teaching of the desirability of making the specific combination that was made by the applicant); *In re Fine*, 837 F.2d 1071, 1075, 5 USPQ2d 1596, 1600 (Fed. Cir. 1988) (“teachings of references can be combined only if there is some suggestion or incentive to do so.”) (emphasis in original) (quoting *ACS Hosp. Sys., Inc. v. Montefiore Hosp.*, 732 F.2d 1572, 1577, 221 USPQ 929, 933 (Fed. Cir. 1984)). The need for specificity pervades this authority. See, e.g., *In re Kotzab*, 217 F.3d 1365,

## **II. Art of Record Does Not Establish Prima Facie Case of Unpatentability of Claims 1-19 as Amended Herein**

In the Office Action, Examiner stated "claims 1-4, 7, 11, 14, and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Acampora (Patent No. US 5,697,066)." *See Examiner's Office Action* page 2 (28 December 2005). Claims 24-30 stand rejected under 35 U.S.C. § 102(e). *See Examiner's Office Action* p. 3 (28 December 2005). Claims 5, 6, 8-10, 12, 13, 15-19, and 21-23 stand rejected under 35 U.S.C. § 103(a). *Id.* pp. 4-8 (28 December 2005).

Applicant respectfully shows, below, that, on its face, the art of record does not show or suggest Applicant's herein-amended Claims 1-19. Accordingly, under the MPEP standards as set forth above, Applicant respectfully requests that Examiner allow such claims.

### **A. Independent Claim 1**

In response to Examiner and in follow-on to the Examiner's Interview described herein, Applicant respectfully points out that Applicant's herein-amended Independent Claim 1 recites as follows:

A mote system comprising:

[a] at least one of an antenna signal generation unit or an antenna signal detection unit;

[b] a directional antenna system operably coupled with said at least one of an antenna signal generation unit or an antenna signal detection unit, wherein said directional antenna system further includes but is not limited to an antenna steering unit; and

[c] a mote having said directional antenna system operably coupled with said at least one of an antenna signal generation unit or an antenna signal detection unit.

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1371, 55 USPQ2d 1313, 1317 (Fed. Cir. 2000) ("particular findings must be made as to the reason the skilled artisan, with no knowledge of the claimed invention, would have selected these components for combination in the manner claimed"); *In re Rouffet*, 149 F.3d 1350, 1359, 47 USPQ2d 1453, 1459 (Fed. Cir. 1998) ("even when the level of skill in the art is high, the Board must identify specifically the principle, known to one of ordinary skill, that suggests the claimed combination. In other words, the Board must explain the reasons one of ordinary skill in the art would have been motivated to select the references and to combine them to render the claimed invention obvious."))

## **1. No Prima Facie Anticipation of Independent Claim 1**

In the Office Action, Examiner rejected Applicant's Claim 1 "as being anticipated by Acampora (Patent No. US 5,697,066)." Applicant's Independent Claim 1 now recites "a directional antenna system operably coupled with said at least one of an antenna signal generation unit or an antenna signal detection unit, wherein said directional antenna system further includes but is not limited to an antenna steering unit; and a mote having said directional antenna system operably coupled with said at least one of an antenna signal generation unit or an antenna signal detection unit." So far as Applicant can tell, at present there has been no identification of any portion of Acampora of the foregoing recitations of Applicant's Independent Claim 1. Accordingly, under the MPEP standards as set forth above, no prima facie case exists that Acampora anticipates Claim 1.

## **2. No Prima Facie Obviousness of Independent Claim 1**

As shown above, in order to establish a prima facie case of obviousness an examiner must "adduce objective evidence which establishes, under a preponderance of the evidence standard, a teaching to modify the teachings of the prior art reference components such that the prior art reference components can be used to construct a device that meets the recitations of the claim at issue. This last step generally encompasses two sub-steps: (1) adducement of objective evidence teaching how to modify the prior art components to achieve the individual recitations of the claim at issue; and (2) adducement of objective evidence teaching how to combine the modified individual components such that the claim at issue, as a whole, is achieved."

As shown following, no objective evidence teaching how to modify the prior art components to achieve the individual recitations of herein-amended Claim 1 has been identified by Examiner. Accordingly, under the MPEP standards no prima facie case of the obviousness of Claim 1 has been established. Specifically, shown following is that (1) under the MPEP standards there can be no teaching to modify/combine Nishimura et al. with Acampora as suggested by Examiner in that such combination will render Acampora and/or Nishimura et al. unfit for their intended purposes; (2) under the MPEP standards there can be no teaching to modify/combine in that Acampora is art non-analogous to Applicant's claims at issue; and/or (3) under the MPEP standards there can be no teaching to modify/combine in that Applicant is



traversing Examiner's assertion of a teaching to modify/combine as not objectively verifiable in that it is either based on Examiner's personal knowledge or was based on impermissible hindsight (Applicant is thus asking for citation to an objectively verifiable teaching to modify/combine or an affidavit from Examiner). Accordingly, under the MPEP standards there is no *prima facie* case of obviousness of Applicant's Independent Claim 1.

**(a) No Objective Evidence of Teaching to Modify/Combine Exists in that Proposed Modification Changes the Structure of Acampora and/or Nishimura et al. Such That They Are Unsatisfactory for Their Intended Purposes: No Teaching to Combine/Modify as a Matter of Law**

With respect to this point, Applicant respectfully directs Examiner to *MPEP* § 2143.01, Suggestion or Motivation to Modify the References, which states as follows:

**THE PROPOSED MODIFICATION CANNOT RENDER THE PRIOR ART UNSATISFACTORY FOR ITS INTENDED PURPOSE**

If proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. *In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984) (Claimed device was a blood filter assembly for use during medical procedures wherein both the inlet and outlet for the blood were located at the bottom end of the filter assembly, and wherein a gas vent was present at the top of the filter assembly. The prior art reference taught a liquid strainer for removing dirt and water from gasoline and other light oils wherein the inlet and outlet were at the top of the device, and wherein a pet-cock (stopcock) was located at the bottom of the device for periodically removing the collected dirt and water. The reference further taught that the separation is assisted by gravity. The Board concluded the claims were *prima facie* obvious, reasoning that it would have been obvious to turn the reference device upside down. The court reversed, finding that if the prior art device was turned upside down it would be inoperable for its intended purpose because the gasoline to be filtered would be trapped at the top, the water and heavier oils sought to be separated would flow out of the outlet instead of the purified gasoline, and the screen would become clogged.).

Examiner has stated "it would have been obvious at the time of the invention to one of ordinary skill in the art at the time the invention was made to incorporate a mote as taught by Nishimura et al. into Acampora's variable antenna system in order to reduce size and costs (Section 0013)." *See Examiner's Office Action* p. 7 (28 December 2005) .

Acampora “relates to radio communications, and more particularly to radio communications methods in a cellular or similar system between a base station transmitter/receiver and a plurality of remote stations, in particular mobile stations.” Acampora, col. 1, lines 5-10. The motes of Nishimura et al. are described as having “a small outer shape, for example, as sphere having a diameter of 1 mm...., Nishimura et al. [0071], “if motes 3 are disposed spaced by a distance of 100 m or 1 km, a large communication power is consumed and the size of an antenna necessary for communications becomes large and Mote 3 become large correspondingly. **Therefore, the distance between Motes 3 and the base station 4 is preferably 10 m or shorter, more preferably 5 m, and most preferably 1 m or shorter.**” Nishimura et al. [0077] (emphasis added).

The upshot of the foregoing is that if the technologies of Nishimura et al. are scaled up enough to have the capabilities and power to function in the cellular system of Acampora, such scaled up technologies will no longer be fit to function as the motes described by Acampora. Conversely, if the technologies of Nishimura et al. are left unscaled and combined with Acampora as suggested by Examiner, such unscaled technologies will not function as cellular systems in that a “cell” operating in 10 meters or shorter would most likely be unacceptable by those skilled in the art. In addition, since the motes of Nishimura et al. are described as having “a sensing function for observing the environment of Mote 3, such as light, temperature, humidity, sound, position, velocity, magnetic field, and electric field,” Nishimura et al. [0072], even when scaled the technologies of Nishimura et al. would still not function as a cellular communications system when incorporated into Acampora. Accordingly, insofar as that the proposed combination of Acampora with Nishimura et al. would render both Acampora and Nishimura et al. unfit for their respective purposes, under the MPEP standard there can be no teaching to combine as a matter of law. Consequently, the art of record does not show or suggest the recitations of Independent Claim 1, and no teaching to modify and/or combine the art of record such that it *does* meet the recitations of Independent Claim 1 can exist as a matter of law. Accordingly, in light of the MPEP standards for patentability as set forth above, Independent Claim 1 is not rendered obvious by the art of record. Accordingly, Applicant respectfully requests that Examiner issue a Notice of Allowance of Applicant’s Independent Claim 1.

As an aside, Applicant points out that the foregoing is not necessarily surprising since, as both Applicant tried to explain to Examiners during the above-referenced interview, mote networks and related technologies are *different in kind* from non-mote networks and hence

it stands to reason that the combinations of such different in kind technologies would reciprocally render both unfit for their intended purposes.

**(b) No Prima Facie Case of Obviousness Exists Because Acampora and Nishimura et al. Constitute Non-Analogous Art**

As Applicant tried to explain to Examiners during the above-referenced interview, mote networks are different in kind from non-mote networks and hence constitute non-analogous art. With respect to this point, Applicant respectfully directs Examiner to *MPEP* § 2141.01(a) Analogous and Nonanalogous Art, which states as follows:

TO RELY ON A REFERENCE UNDER 35 U.S.C. 103, IT MUST BE  
ANALOGOUS PRIOR ART

“In order to rely on a reference as a basis for rejection of an applicant’s invention, the reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the inventor was concerned.” In re Oetiker, 977 F.2d 1443, 1446, 24 USPQ2d 1443, 1445 (Fed. Cir. 1992).

With respect to the electrical arts, Applicant respectfully directs Examiner to *MPEP* § 2141.01(a)(V) Analogy in the Electrical Arts, which states as follows:

ANALOGY IN THE ELECTRICAL ARTS

See, for example, Wang Laboratories, Inc. v. Toshiba Corp., 993 F.2d 858, 26 USPQ2d 1767 (Fed. Cir. 1993) (Patent claims were directed to single in-line memory modules (SIMMs) for installation on a printed circuit motherboard for use in personal computers. Reference to a SIMM for an industrial controller was not necessarily in the same field of endeavor as the claimed subject matter merely because it related to memories. Reference was found to be in a different field of endeavor because it involved memory circuits in which modules of varying sizes may be added or replaced, whereas the claimed invention involved compact modular memories. Furthermore, since memory modules of the claims at issue were intended for personal computers and used dynamic random-access-memories, whereas reference SIMM was developed for use in large industrial machine controllers and only taught the use of static random-access-memories or read-only-memories, the finding that the reference was nonanalogous was supported by substantial evidence.)

Applicant respectfully points that Acampora is a cellular communications reference that is nonanalogous to Applicant's Independent Claim 1. As Applicant related to Examiners in the above-referenced interview, mote networks are different in kind from cellular networks. Specifically, during the above-referenced interview, Applicant pointed out that in the Information Disclosure Statements of the instant case, Applicant has submitted to the PTO copies of 40 + *mote specific references* and that mote network designers would typically consult works from their own field rather than the far-afield material such as Acampora's cellular communication reference.

Notwithstanding the forgoing, Applicant respectfully points out that perhaps the best indication that Acampora is non-analogous art was set forth above: that is, if Acampora is combined with Nishimura et al., both the teachings of Acampora and Nishimura et al. are rendered unsatisfactory for their intended purposes. Accordingly, it is unlikely that one skilled in mote networks would have consulted Acampora, and thus Acampora constitutes non-analogous art. Accordingly, there is no prima facie case of the obviousness of Applicant's Independent Claim 1.

**(c) No Objective Evidence of Teaching to Modify/Combine Exists in that Suggested Teaching Is Either Based on Personal Knowledge of Examiner or Impermissible Hindsight**

Applicant has herein-amended Independent Claim 1 to contain the recitations of herein-cancelled Dependent Claims 14 and 18. With respect to herein-cancelled Dependent Claim 18, Examiner has previously stated "Nishimura et al. wireless communication apparatus teaches a mote 3 (Fig. 3) having the directional antenna system 6 (Fig. 3) operably coupled with the at least one of an antenna signal generation unit 2 (Fig. 3) or an antenna signal detection unit 2 (Fig. 3). Therefore, it would have been obvious at the time of the invention to one of ordinary skill in the art at the time the invention was made to incorporate a mote as taught by Nishimura et al. into Acampora's variable antenna system in order to reduce size and costs (Section 0013)." *See Examiner's Office Action* p. 7 (28 December 2005) .

**(1) Suggested Teaching Is Based on Personal Knowledge of Examiner; Applicant Requests Supporting Affidavit or Issuance of a Notice of Allowance**

Applicant asserts that Examiner has not identified any objective teaching in the art as to why one ought to “incorporate a mote as taught by Nishimura et al. into Acampora’s variable antenna system in order to reduce size and costs.” Applicant cannot find reference to motes in Acampora as to why incorporation of motes might be advantageous, and hence believes that the teaching to combine that Examiner asserts is based on facts within the personal knowledge of Examiner. Accordingly, under MPEP § 2113 as described above, Applicant respectfully requests that Examiner provide an affidavit regarding the facts in his personal knowledge. Barring that, Applicant respectfully asserts that there is no objectively verifiable teaching to modify/combine to meet the recitations of Applicant’s Independent Claim 1, and hence under the MPEP standards no prima facie case of the unpatentability of Independent Claim 1 exists. Accordingly, Applicant respectfully requests that Examiner hold Applicant’s Independent Claim 1 allowable.

**(2) Suggested Teaching Appears to be Based on Impermissible Hindsight; Applicant Requests Issuance of a Notice of Allowance**

As set forth above, under the MPEP standards, any teachings to modify or combine must be objectively verifiable. Specifically, as set forth above, under the relevant MPEP sections and legal standards, any conclusion that the art of record establishes a prima facie case of obviousness “*must be based on objective evidence of record.*”

Applicant has shown herein that there can be no teaching to combine Nishimura et al. into Acampora’s as a matter of law for at least one reason: the proposed modification renders the system of Nishimura et al. and/or Acampora unfit for their intended purposes. Hence, the art of record contains no objectively identifiable teachings to combine Nishimura et al. and Acampora, and indeed it cannot as a matter of law.

As set forth above, in the absence of objectively verifiable teachings to modify and/or combine the art of record to reach Applicant's claims at issue, no prima facie case of unpatentability has been established. Accordingly, Applicant respectfully requests that Examiner hold Independent Claim 1 patentable over the art of record.

Insofar as that the art of record does not and cannot contain the alleged teachings to modify and/or combine the question arises as to where the Examiner stumbled upon such alleged

teachings to modify and/or combine. Applicant respectfully points out that there is only one objectively verifiable place in the documentation of record wherein such teachings appear: Applicant's patent application. Accordingly, insofar as that the only objectively verifiable teachings of record showing or suggesting the alleged teachings to modify and/or combine reside in Applicant's patent application, it follows that Examiner has used Applicant's patent application as a template by which to piece together the related art to reach Applicant's claims at issue. As set forth above, under the MPEP standards this is impermissible hindsight. Accordingly, Applicant respectfully requests that Examiner hold Claim 1 patentable over the art of record for at least this reason also.

In light of the above, Applicant respectfully submits that Independent Claim 1 is patentable over the art of record and respectfully requests that Examiner issue a Notice of Allowance of Claim 1.

#### **B. Dependent Claims 2-19**

Claims 2-19 depend either directly or indirectly from Independent Claim 1. "A claim in dependent form shall be construed to incorporate by reference all the limitations of the claim to which it refers." *See* 35 U.S.C. § 112 paragraph 4. Consequently, Dependent Claims 2-19 are not rendered obvious by the art of record for at least the reasons why Independent Claim 1 is not rendered obvious by the art of record. Accordingly, Applicant respectfully requests that Examiner hold Dependent Claims 2-19 patentable over the art of record for at least the foregoing reasons.

### **III. Art of Record Does Not Establish Prima Facie Case of Unpatentability of Claims 20-23 as Presented Herein**

In the Office Action, Examiner stated "claims 1-4, 7, 11, 14, and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Acampora (Patent No. US 5,697,066)." *See Examiner's Office Action* page 2 (28 December 2005). Claims 24-30 stand rejected under 35 U.S.C. § 102(e). *See Examiner's Office Action* p. 3 (28 December 2005). Claims 5, 6, 8-10, 12, 13, 15-19, and 21-23 stand rejected under 35 U.S.C. § 103(a). *Id.* pp. 4-8 (28 December 2005).

Applicant respectfully shows, below, that, on its face, the art of record does not show or suggest Applicant's Claims 20-23. Accordingly, under the MPEP standards as set forth above, Applicant respectfully requests that Examiner allow such claims.

#### **A. Independent Claim 20**

In response to Examiner and in follow-on to the Examiner's Interview described herein, Applicant respectfully points out that Applicant's Independent Claim 20 recites as follows:

A mote method of using comprising:  
distributing a mote, the mote having

- (i) at least one of an antenna signal generation unit or an antenna signal detection unit, and
- (ii) a directional antenna system operably couplable with said at least one of an antenna signal generation unit or an antenna signal detection unit.

#### **1. No Prima Facie Anticipation of Independent Claim 20**

In the Office Action, Examiner rejected Applicant's Claim 20 under 35 U.S.C. 102(b) as being anticipated by Acampora (Patent No. US 5,697,066). See *Examiner's Office Action* page 2 (28 December 2005). Specifically, with respect to Claim 20, Examiner stated "[r]egarding claim 20, method claim 20 is rejected for the same reason as system claim 1 [(e.g., as anticipated by Acampora)] since the recited elements would perform the claimed steps." *Id* at p.3.

Applicant respectfully points out that Independent Claim 20 recites "***distributing a mote, the mote having*** (i) at least one of an antenna signal generation unit or an antenna signal detection unit, and (ii) a directional antenna system operably couplable with said at least one of an antenna signal generation unit or an antenna signal detection unit." Applicant respectfully points out that it appears that Examiner inadvertently overlooked the mote recitations of Independent Claim 20. So far as Applicant can tell, at present there has been no identification of any portion of Acampora of the foregoing recitations of Applicant's Independent Claim 20.

Accordingly, under the MPEP standards as set forth above, no prima facie case exists that Acampora anticipates Claim 20.

## **2. No Prima Facie Obviousness of Independent Claim 20**

As shown above, in order to establish a prima facie case of obviousness an examiner must “adduce objective evidence which establishes, under a preponderance of the evidence standard, a teaching to modify the teachings of the prior art reference components such that the prior art reference components can be used to construct a device that meets the recitations of the claim at issue. This last step generally encompasses two sub-steps: (1) adducement of objective evidence teaching how to modify the prior art components to achieve the individual recitations of the claim at issue; and (2) adducement of objective evidence teaching how to combine the modified individual components such that the claim at issue, as a whole, is achieved.”

Because Examiner inadvertently missed the mote recitations of Independent Claim 20, no objective evidence teaching how to modify the prior art components to achieve the individual recitations of Claim 20 has been identified by Examiner. Accordingly, under the MPEP standards no prima facie case of the obviousness of Independent Claim 20 has been established. Accordingly, Applicant respectfully requests that Examiner issue a Notice of Allowance of Applicant’s Independent Claim 20.

### **B. Dependent Claims 21-23**

Claims 21-23 depend either directly or indirectly from Independent Claim 20. “A claim in dependent form shall be construed to incorporate by reference all the limitations of the claim to which it refers.” *See* 35 U.S.C. § 112 paragraph 4. Consequently, Dependent Claims 21-23 are not rendered unpatentable by the art of record for at least the reasons why Independent Claim 20 is not rendered unpatentable by the art of record. Accordingly, Applicant respectfully requests that Examiner hold Dependent Claims 21-23 patentable over the art of record for at least the foregoing reasons.

## **IV. Art of Record Does Not Establish Prima Facie Case of Unpatentability of Claims 24-27 as Presented Herein**



In the Office Action, Examiner stated “claims 1-4, 7, 11, 14, and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Acampora (Patent No. US 5,697,066).” *See Examiner’s Office Action* page 2 (28 December 2005). Claims 24-30 stand rejected under 35 U.S.C. § 102(e). *See Examiner’s Office Action p. 3* (28 December 2005). Claims 5, 6, 8-10, 12, 13, 15-19, and 21-23 stand rejected under 35 U.S.C. § 103(a). *Id.* pp. 4-8 (28 December 2005).

Applicant respectfully shows, below, that, on its face, the art of record does not show or suggest Applicant’s Claims 24-27. Accordingly, under the MPEP standards as set forth above, Applicant respectfully requests that Examiner allow such claims.

#### **A. Independent Claim 24**

In response to Examiner and in follow-on to the Examiners’ Interview described herein, Applicant respectfully points out that Applicant’s herein-amended Independent Claim 24 recites as follows:

A mote method of making comprising:  
forming a mote body; and  
emplacing a directional antenna and an antenna steering unit proximate to the mote body.

##### **1. No Prima Facie Anticipation of Independent Claim 24**

In the Office Action, Examiner rejected Applicant’s Claim 24 under 35 U.S.C. 102(b) as being anticipated by Nishimura et al. (US Pat App# 2004/0005889).” *See Examiner’s Office Action* page 3 (28 December 2005). Specifically, with respect to Claim 24, Examiner stated “[r]egarding claim 24, Nishimura et al. teaches forming a mote body 3 (Fig. 3); and emplacing a directional antenna 6 (Fig. 3) proximate to the mote body 3 (Fig. 3).” *See Examiner’s Office Action* page 3 (28 December 2005).

Applicant respectfully points out that herein-amended Independent Claim 24 recites “forming a mote body; and emplacing a directional antenna and an antenna steering unit proximate to the mote body.” Applicant respectfully points out that, so far as Applicant can tell, at present there has been no identification within Nishimura et al. of the foregoing recitations of Applicant’s Independent Claim 24. Accordingly, under the MPEP standards as set forth above, no prima facie case exists that Nishimura et al. anticipates Claim 24.

## **2. No Prima Facie Obviousness of Independent Claim 24**

As shown above, in order to establish a prima facie case of obviousness an examiner must “adduce objective evidence which establishes, under a preponderance of the evidence standard, a teaching to modify the teachings of the prior art reference components such that the prior art reference components can be used to construct a device that meets the recitations of the claim at issue. This last step generally encompasses two sub-steps: (1) adducement of objective evidence teaching how to modify the prior art components to achieve the individual recitations of the claim at issue; and (2) adducement of objective evidence teaching how to combine the modified individual components such that the claim at issue, as a whole, is achieved.”

As the case stands now, no objective evidence teaching how to modify the prior art components to achieve the individual recitations of Claim 24 has been identified by Examiner. Accordingly, under the MPEP standards no prima facie case of the obviousness of Claim 24 has been established. Accordingly, Applicant respectfully requests that Examiner issue a Notice of Allowance of Applicant’s Independent Claim 24.

### **B. Dependent Claims 25-27**

Claims 25-27 depend either directly or indirectly from Independent Claim 24. “A claim in dependent form shall be construed to incorporate by reference all the limitations of the claim to which it refers.” *See* 35 U.S.C. § 112 paragraph 4. Consequently, Dependent Claims 25-27 are not rendered unpatentable by the art of record for at least the reasons why Independent Claim 24 is not rendered unpatentable by the art of record. Accordingly, Applicant respectfully requests that Examiner hold Dependent Claims 25-27 patentable over the art of record for at least the foregoing reasons.

## **V. Art of Record Does Not Establish Prima Facie Case of Unpatentability of Claims 28-30 as Presented Herein**

In the Office Action, Examiner stated “claims 1-4, 7, 11, 14, and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Acampora (Patent No. US 5,697,066).” *See Examiner’s Office Action* page 2 (28 December 2005). Claims 24-30 stand rejected under 35

U.S.C. § 102(e). *See Examiner's Office Action* p. 3 (28 December 2005). Claims 5, 6, 8-10, 12, 13, 15-19, and 21-23 stand rejected under 35 U.S.C. § 103(a). *Id.* pp. 4-8 (28 December 2005).

Applicant respectfully shows, below, that, on its face, the art of record does not show or suggest Applicant's Claims 28-30. Accordingly, under the MPEP standards as set forth above, Applicant respectfully requests that Examiner allow such claims.

#### **A. Independent Claim 28**

In response to Examiner and in follow-on to the Examiner's Interview described herein, Applicant respectfully points out that Applicant's herein-amended Independent Claim 28 recites as follows:

A mote method comprising:

integrating an antenna steering unit and a directional antenna proximate to a mote body with at least one of an animate or inanimate unit.

##### **1. No Prima Facie Anticipation of Independent Claim 28**

In the Office Action, Examiner rejected Applicant's Claim 28 under 35 U.S.C. 102(b) as being anticipated by Nishimura et al. (US Pat App# 2004/0005889). *See Examiner's Office Action* page 3 (28 December 2005). Specifically, with respect to Claim 28, Examiner stated "[r]egarding claim 28, Nishimura et al. teaches integrating a directional antenna 6 (Fig. 3) proximate to a mote body 3 (Fig. 3) with at least one of an animate or inanimate unit (Sections 0070, 0074, and 0076)." *See Examiner's Office Action* page 4 (28 December 2005).

Applicant respectfully points out that herein-amended Independent Claim 28 recites "integrating an antenna steering unit and a directional antenna proximate to a mote body with at least one of an animate or inanimate unit." Applicant respectfully points out that, so far as Applicant can tell, at present there has been no identification within Nishimura et al. of the foregoing recitations of Applicant's herein-amended Independent Claim 28. Accordingly, under the MPEP standards as set forth above, no prima facie case exists that Nishimura et al. anticipates Claim 28.

##### **2. No Prima Facie Obviousness of Independent Claim 28**

As shown above, in order to establish a prima facie case of obviousness an examiner must “adduce objective evidence which establishes, under a preponderance of the evidence standard, a teaching to modify the teachings of the prior art reference components such that the prior art reference components can be used to construct a device that meets the recitations of the claim at issue. This last step generally encompasses two sub-steps: (1) adducement of objective evidence teaching how to modify the prior art components to achieve the individual recitations of the claim at issue; and (2) adducement of objective evidence teaching how to combine the modified individual components such that the claim at issue, as a whole, is achieved.”

As the case stands now, no objective evidence teaching how to modify the prior art components to achieve the individual recitations of Claim 28 has been identified by Examiner. Accordingly, under the MPEP standards no prima facie case of the obviousness of Claim 28 has been established. Accordingly, Applicant respectfully requests that Examiner issue a Notice of Allowance of Applicant’s Independent Claim 28.

#### **B. Dependent Claims 29-30**

Claims 29-30 depend either directly or indirectly from Independent Claim 28. “A claim in dependent form shall be construed to incorporate by reference all the limitations of the claim to which it refers.” *See* 35 U.S.C. § 112 paragraph 4. Consequently, Dependent Claims 29-30 are not rendered unpatentable by the art of record for at least the reasons why Independent Claim 28 is not rendered unpatentable by the art of record. Accordingly, Applicant respectfully requests that Examiner hold Dependent Claims 29-30 patentable over the art of record for at least the foregoing reasons.

**VI. Claims Herein Cancelled/Amended in Response to Examiner for Reasons Tangential to Patentability; No Waiver is Intended, and All Legal/Factual Rights and/or Positions are Reserved**

Applicant has herein cancelled and/or amended claims. Applicant does not consider the art of record to render the previously unamended/uncancelled claims unpatentable under post-issuance claim interpretation rules, but has amended herein because the PTO is not bound by post-issuance claim interpretation rules. Accordingly, Applicant considers all cancellations/amendments herein to be tangential to patentability.

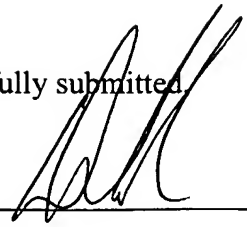
Insofar as the Applicant has herein amended/cancelled claims sufficient to obtain a Notice of Allowance on all claims pending, Applicant has not herein explicitly addressed every rejection and/or statement in Examiner's Office Action. The fact that the rejections and/or statements are not herein explicitly addressed should NOT be taken as an admission of any sort, and Applicant hereby reserves any and all rights to contest such rejections and/or statements at a later time. For example, Applicant contends that, contrary to Examiner, the antennas of Nishimura et al. Fig. 3 are not directional, but did not expressly call that out above for sake of clarity. Specifically, no waiver (legal, factual, or otherwise), implicit or explicit, is hereby intended (e.g., with respect to those facts of which Examiner took Official Notice Applicant hereby contests those facts and requests express documentary proof of such facts at such time at which such facts may become relevant).

As shown above, the portions of the technical material cited by Examiner do not match the recitations of Applicant's herein-amended claims. Consequently, Applicant respectfully requests that Examiner issue a Notice of Allowance on all pending claims for at least the reasons set forth herein.

If the undersigned attorney has overlooked a relevant teaching in any of the references, the Examiner is requested to point out specifically where such teaching may be found. Furthermore, although not expressly set forth herein, Applicant continues to assert all points of any previous Office Action, and no waiver (legal, factual, or otherwise), implicit or explicit, is hereby intended.

The Examiner is encouraged to contact the undersigned by telephone at (425) 467-2260 to discuss the above and any other distinctions between the claims and the applied references, if desired. Also, if the Examiner notes any informalities in the claims, he is encouraged to contact the undersigned to expediently correct such informalities.

Respectfully submitted



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Dale Cook  
Attorney  
Registration No. 42,434

DRC:jmb

Enclosures:

- Postcard
- Check
- Post-Filing Transmittal
- Petition for Extension of Time (+2 copies)
- Declaration and Power of Attorney

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